

# THINKING CUBE

## KNOW

- What is the definition?
- What are some of the parts?
- What are some examples?
- Who, what, where, or when?
- Write something about it.
- Draw and label one or more of its components.
- How could you identify it?

## SYNTHESIZE

- How could you adapt this to a new idea, experiment?
- How could you create or design something new?
- What can you predict or infer?
- How could you demonstrate this to someone else?
- What elements could be added?

## COMPREHEND

- Describe characteristics.
- With what do you associate this issue, concept, idea, principle?
- Explain this to the class.
- Summarize what you know or have learned.
- How could you restate this?
- What can you infer?

## EVALUATE

- What are the various opinions and which do you feel is most important?
- What evidence is there to support this issue, idea, concept, principle?
- What can you interpret from this information?
- What criteria could you use to assess this?

## APPLY

- Why is this important?
- How could you apply this information to a new situation?
- What can you predict from this?
- How can this be modified?
- How does this work?
- What problems does it solve?

## ANALYZE

- Compare or contrast this with something else.
- How could this be related to something else?
- What are its distinguishing features, characteristics?
- What are the component parts?
- What further research or work could be done?

## DIRECTIONS FOR THE USE OF THE THINKING CUBE IN THIS MODULE

You have just completed the labs and models on Boyle's and Charles' Lab. Using the information you have learned, your lab group needs to demonstrate that it **thoroughly** understands these laws, the relationships, and the models by selecting one question on each side of the Learning Cube and answering it in detail. Be sure to do the following:

- Demonstrate that you know both gas laws, the relationships, and the models. In other words, you may want to answer one question about Boyle's Law, another question about Charles' Law, and another question about the models.
- Identify the knowledge level (KNOW, COMPREHEND).
- Write the question that you are answering.
- Use complete sentences in your answers.

## OTHER USES OF THE THINKING CUBE

**Introduce a new unit/concept:** The teacher tosses the Thinking Cube to one student and asks the student to select a side and question. The student must tell the class something he/she knows about the topic. The student then tosses it to another student who must select a different side.

**Review a concept:** Either individually or in groups, the teacher has the student(s) review the unit/previous day's material and answer a question from each side of the Thinking Cube about the material being studied. Class can then share.

**Focus a reading assignment:** As students read a passage, they are asked to answer at least one question on each side of the Thinking Cube from their reading. Again answers may be shared in groups or class.